No.01

Oki Data CONFIDENTIAL

C130n/MC160n 2nd Tray
Maintenance Manual

[Rev. 1]

Related drawings

Drawing No.	Name
44244901TL	C130n/MC160n 2nd Tray Disassembly for Maintenance
44244901TR	C130n/MC160n 2nd Tray RSPL

BOM		Use for		Certification Body	
Rev	Date	DCO No.	Contents	Design	Approval
Approval	Koji Aida	Design	Koji Aida	Name	C130n/MC160n 2nd Tray Maintenance Manual
Check					
Date	2009-02-24			Drawing No.	44244901TH

Document Revision History

Rev. No	Date	Corrected items			Person in charge
		No.	Page	Description of change	
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Rev. No	Date	Corrected items			Person in charge
		No.	Page	Description of change	

PREFACE

This manual provides an overview of method for maintaining the C130n/MC160n 2nd Tray Unit.

This manual is intended for maintenance staff. For more information about how to operate the C130n/MC160n 2nd Tray Unit, please refer to User 's manual.

Note!

- Manual may be revised and updated at any time without notice.
- Unexpected mistakes may exist in the manual.
  OKI will not assume any responsibility whatsoever for damage to the equipmentrepaired/adjusted/changed by the user etc with this manual.
- The parts used for this printer may be damaged when handling inappropriately. We strongly recommend maintaining this machine by our registration maintenance staff.
- Please operate the machine after removing static electricity.

C130n/MC160n 2nd Tray Unit

THEORY OF OPERATION

CONTENTS

2nd Tray Unit

OUTLINE

COMPOSITION/OPERATION

OUTLINE

1. Product specifications

1.1 Type

Name	Add-on 500-sheet paper feed cassette
Installation	Desk type
Document alignment	Center

1.2 Paper type

Paper size	A4S/LetterS
Paper type	Plain paper: 60 to 90 g/m² (16 to 24 lb)
Capacity	500 sheets

1.3 Machine specifications

Power requirements	DC 24 V ± 10 % (supplied from the main unit)
	DC 5 V ± 5 %
Max. power consumption	10 W
Dimensions	396 (W) × 509.6 (D) × 120.5 (H) mm 15.6 (W) × 20.1 (H) × 4.75 (D) inch
Weight	Approx. 4.5 kg (1.2 lb)

1.4 Operating environment

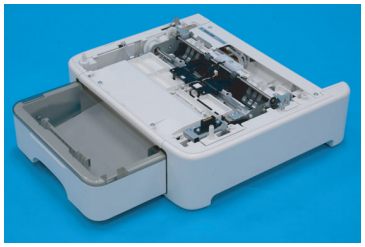
Temperature	10 to 35 °C / 50 to 95 °F (with a fluctuation of 10 °C / 18 °F or less per hour)
Humidity	15 % to 85 % (with a fluctuation of 20 %/h)

NOTE

- **These specifications are subject to change without notice.**

COMPOSITION/OPERATION

2. Composition



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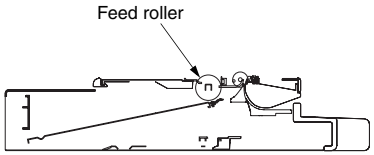

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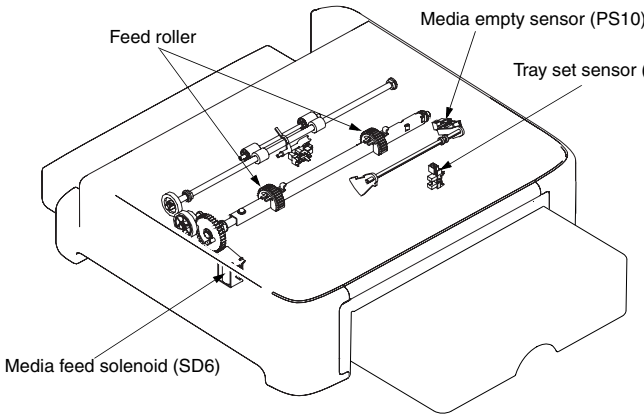

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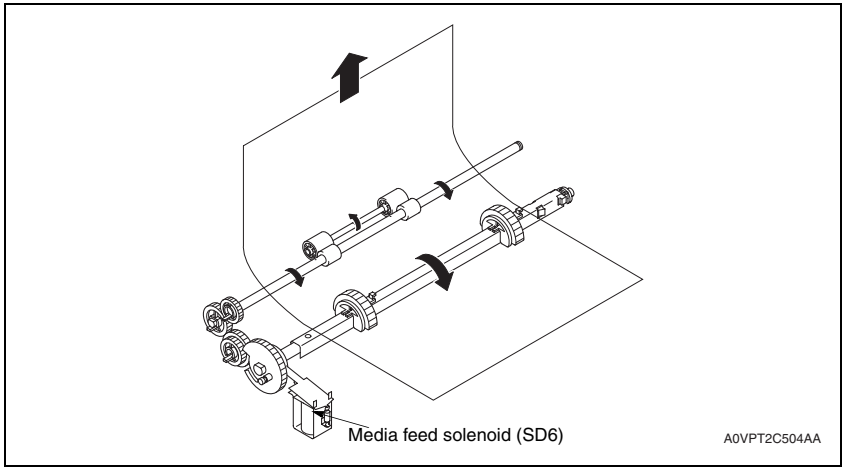
3. Drive



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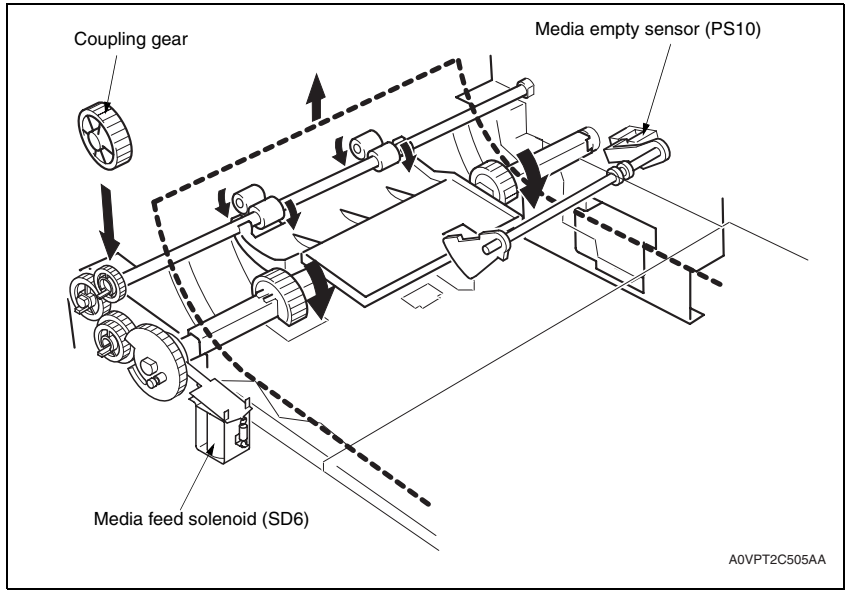
4. Operation

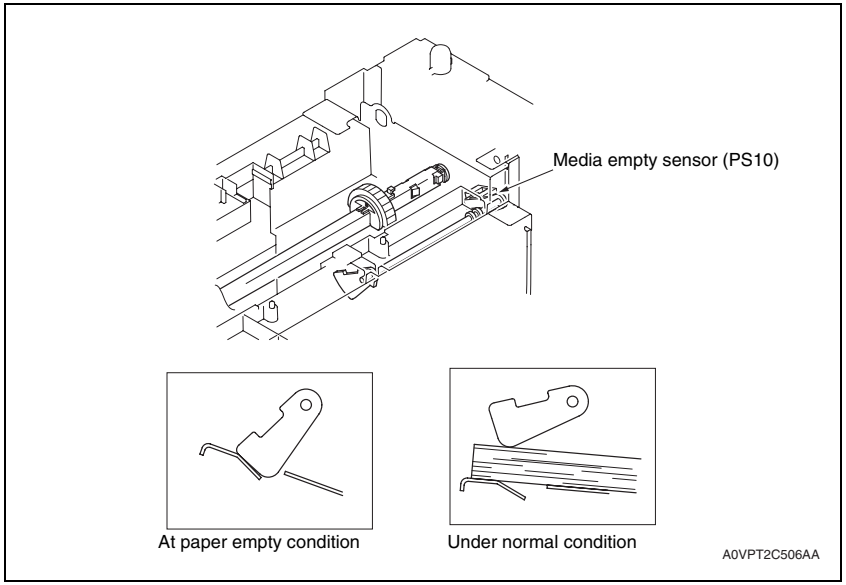
4.1 Conveyance drive mechanism

- The 2nd Tray unit is not provided with any drive motor. The driving force for media feeding and conveyance (drive from M1) is transmitted through a coupling gear from the printer.
- The media separation mechanism uses separation claws installed in the unit and elasticity of the media. It ensures that only one sheet of media is fed in at time.
- The media feed solenoid (SD6) is controlled from the printer side through the PF drive board (PFDB) mounted in the 2nd Tray unit.



4.2 Media Empty Detection

- The media empty sensor (PS10) of the PC control board (PCCB) detects a media empty condition in the 2nd Tray unit.
- When there is media loaded in the 2nd Tray unit, the actuator is raised, which unblocks the sensor.
- When there is no media, the actuator drops into the slit in the media lift plate, thus blocking the sensor.



C130n/MC160n 2nd Tray Unit

FIELD SERVICE

CONTENTS

2nd Tray Unit

OUTLINE

MAINTENANCE

TROUBLESHOOTING

OUTLINE

1. Product specifications

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NOTE

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MAINTENANCE

2. Periodic check

2.1 Maintenance procedure (Periodic parts check)

- Periodically replaced parts are not employed.

3. Other

3.1 Disassembly/adjustment prohibited items

A. Paint-locked screws

NOTE

- **To prevent loose screws, a screw lock in blue or green series color is applied to the screws.**
- **The screw lock is applied to the screws that may get loose due to the vibrations and loads created by the use of machine or due to the vibrations created during transportation.**
- **If the screw lock coated screws are loosened or removed, be sure to apply a screw lock after the screws are tightened.**

B. Red-painted screws

NOTE

- **The screws which are difficult to be adjusted in the field are painted in red in order to prevent them from being removed by mistake.**
- **Do not remove or loosen any of the red-painted screws in the field. It should also be noted that, when two or more screws are used for a single part, only one representative screw may be marked with the red paint.**

C. Variable resistors on board

NOTE

- **Do not turn the variable resistors on boards for which no adjusting instructions are given in Adjustment/Setting.**

D. Removal of PWBs

⚠ CAUTION

- **When removing a circuit board or other electrical component, refer to "Handling of PWBs" and follow the corresponding removal procedures.**
- **The removal procedures given in the following omit the removal of connectors and screws securing the circuit board support or circuit board.**
- **Where it is absolutely necessary to touch the ICs and other electrical components on the board, be sure to ground your body.**

3.2 Disassembly/Assembly list (Other parts)

3.2.1 Disassembly/assembly parts list

No	Section	Part name	Ref. page
1	-	2nd Tray Unit	P.13
2	Exterior parts	Right cover	P.13
3		Left cover	P.13
4		Rear cover	P.13
5	Unit	Pick-up roller	P.14
6		Media pick-up drive unit	P.14
7	Board and etc	PC control board (PCCB)	P.15
8	Others	Media feed solenoid (SD6)	P.16

3.2.2 Cleaning parts list

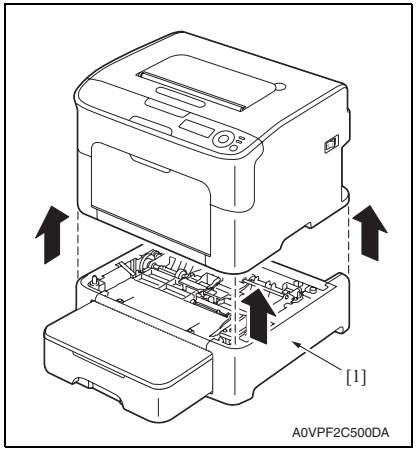
No	Section	Part name	Ref. page
1	Rollers	Pick-up rollers	P.16

3.3 Disassembly/Assembly procedure

3.3.1 2nd Tray Unit

NOTE

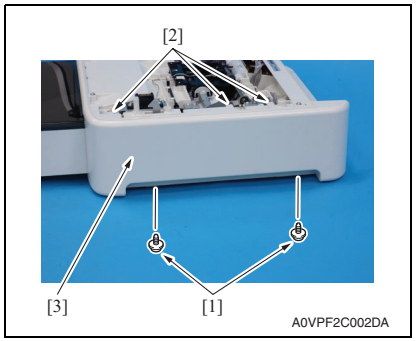
- **Whenever removing or reinstalling the 2nd Tray Unit, be sure first to unplug the power cord of the printer from the power outlet.**



1. Lift the printer main body and then remove the 2nd Tray Unit [1] from the printer.

3.3.2 Right cover

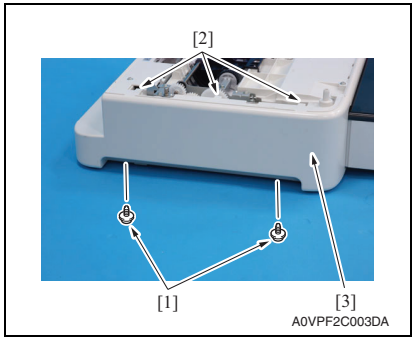
1. Remove the 2nd Tray Unit from the main body.



2. Remove two screws [1] and unhook three tabs [2], and remove the right cover [3].

3.3.3 Left cover

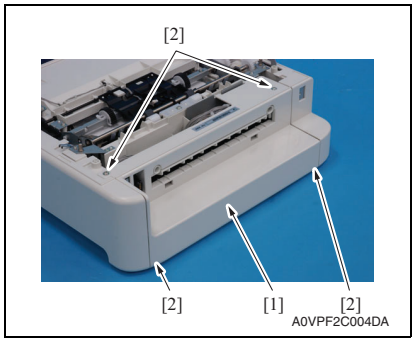
1. Remove the 2nd Tray Unit from the main body.



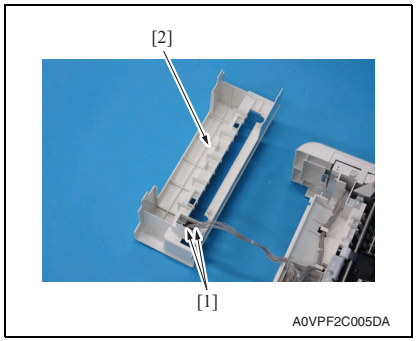
2. Remove two screws [1] and unhook three tabs [2], and remove the left cover [3].

3.3.4 Rear cover

1. Slide out the tray.



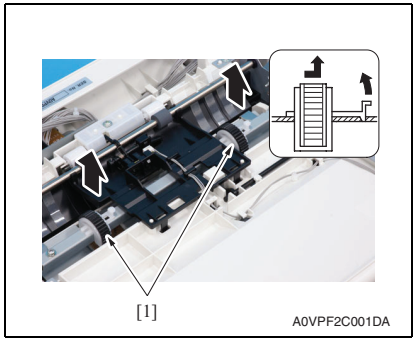
2. Remove four screws [1], and remove the rear cover [2].



3. Disconnect two connectors [1], and remove the rear cover [2].

3.3.5 Pick-up roller

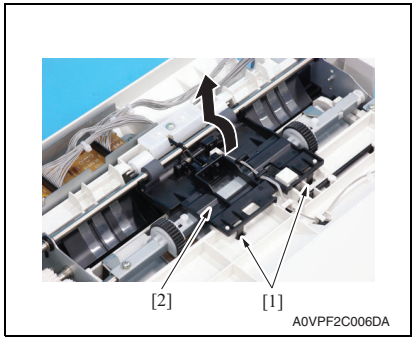
1. Remove the 2nd Tray Unit from the main body.



2. Remove two pick-up rollers [1].

3.3.6 Media pick-up drive unit

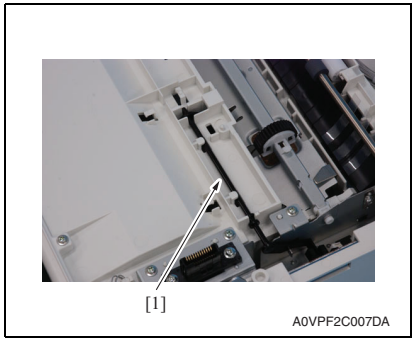
1. Remove the right cover.
See P.13
2. Remove the left cover.
See P.13
3. Remove the rear cover.
See P.13
4. Slide out the tray.



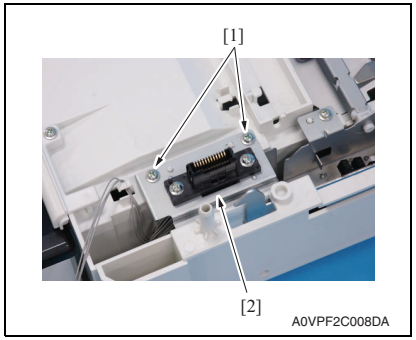
5. Unlock two tabs [1] and remove the cover [2].

NOTE

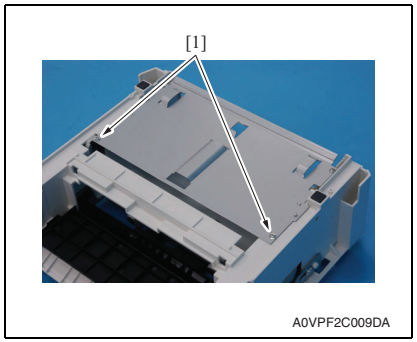
- **Make sure to take off the harness from the guide when removing it.**



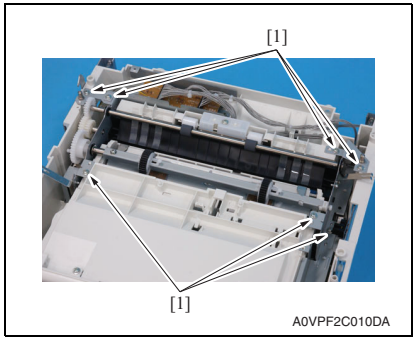
6. Remove the actuator [1].



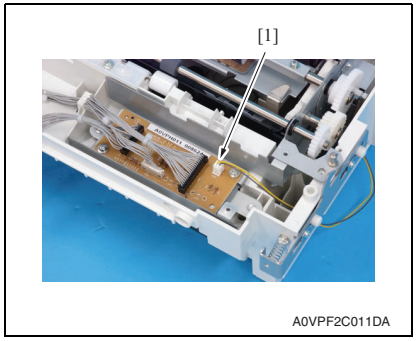
7. Remove two screws [1], and remove the connector fixing plate [2].



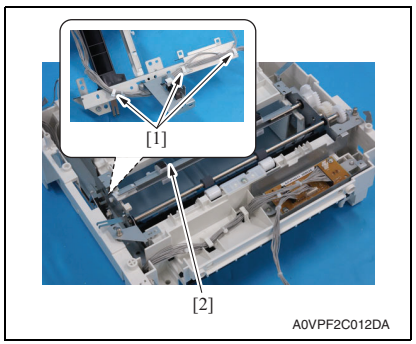
8. Remove two screws [1] on the bottom of media feed unit.



9. Remove seven screws [1], and slide out the media pick-up drive unit [2].



10. Remove the harness from three wire saddles [1].



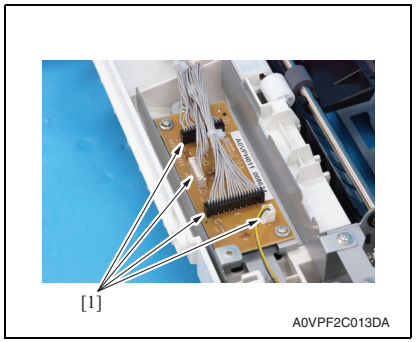
11. Remove the harness from three wire saddles [1].

12. Remove the media pick-up drive unit.

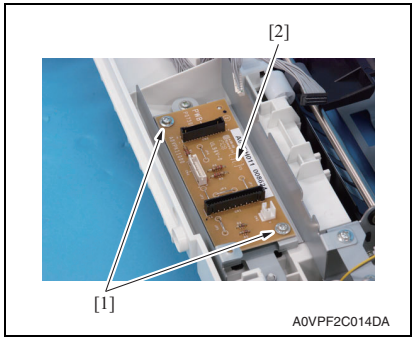
3.3.7 PC control board (PCCB)

1. Remove the 2nd Tray unit.
See P.13

2. Remove the rear cover.
See P.13



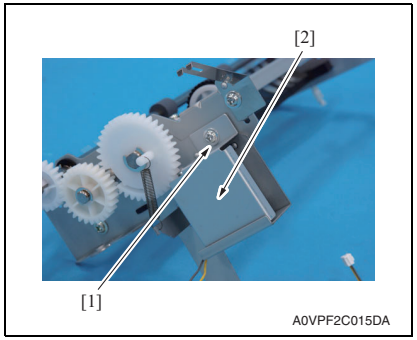
3. Disconnect four connectors [1] from the PC control board.



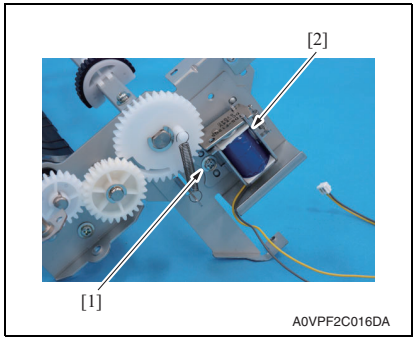
4. Remove two screws [1] and the PC control board [2].

3.3.8 Media feed solenoid (SD6)

1. Remove the media pick-up drive unit.
See P.14



2. Remove the screw [1], and remove the protective cover [2].



3. Remove the screw [1], and remove the media feed solenoid [2].

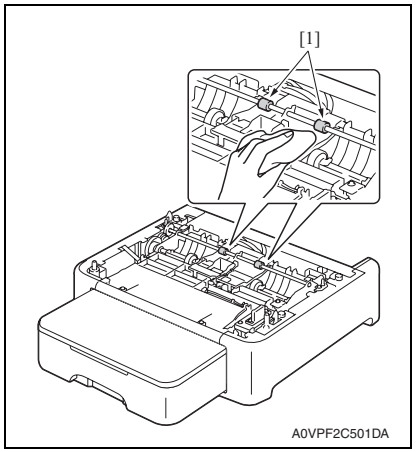
3.4 Cleaning procedure

NOTE

- **The alcohol described in the cleaning procedure is isopropyl alcohol.**

3.4.1 Pick-up roller

1. Remove the 2nd Tray Unit from the main body.



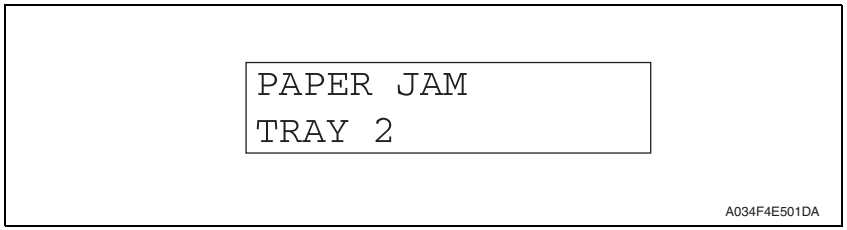
2. Wipe the pick-up roller [1] clean of dirt using a cleaning pad dampened with alcohol.

TROUBLESHOOTING

4. Jam display

4.1 Misfeed display

- When a media misfeed occurs a message is displayed on the control panel.



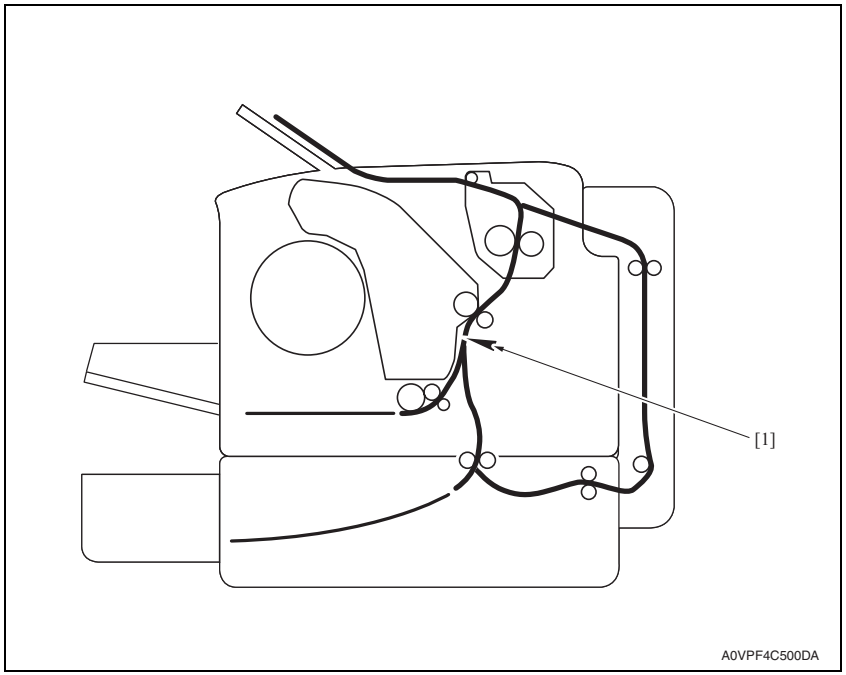
Display	Misfeed location	Misfeed clearing location	Ref. page
PAPER JAM TRAY 2	2nd Tray Unit media take-up section	Tray 2	P.18

4.1.1 Misfeed display resetting procedure

- Open the relevant door, clear the sheet of misfed paper, and close the door.

4.2 Sensor layout

4.2.1 C130n (mounted with the 2nd Tray Unit and Duplex Option)



[1] Registration sensor (PS2)

4.3 Solution

4.3.1 Initial check items

- When a media misfeed occurs, first check the following initial check items.

Check Item	Action
Does the media meet product specifications?	Change the media.
Is media curled, wavy, or damp.	Change the media. Instruct the user in correct paper storage.
Is a foreign object present along the paper path, or is the media path deformed or worn?	Clean or change the media path.
Are the rolls/rollers dirty, deformed, or worn?	Clean or change the defective roll/roller.
Are the edge guide and trailing edge stop at the correct position to accommodate the paper?	Set as necessary.
Are the actuators found operational when checked for correct operation?	Correct or change the defective actuator.

4.3.2 2nd Tray unit media take-up section

A. Detection timing

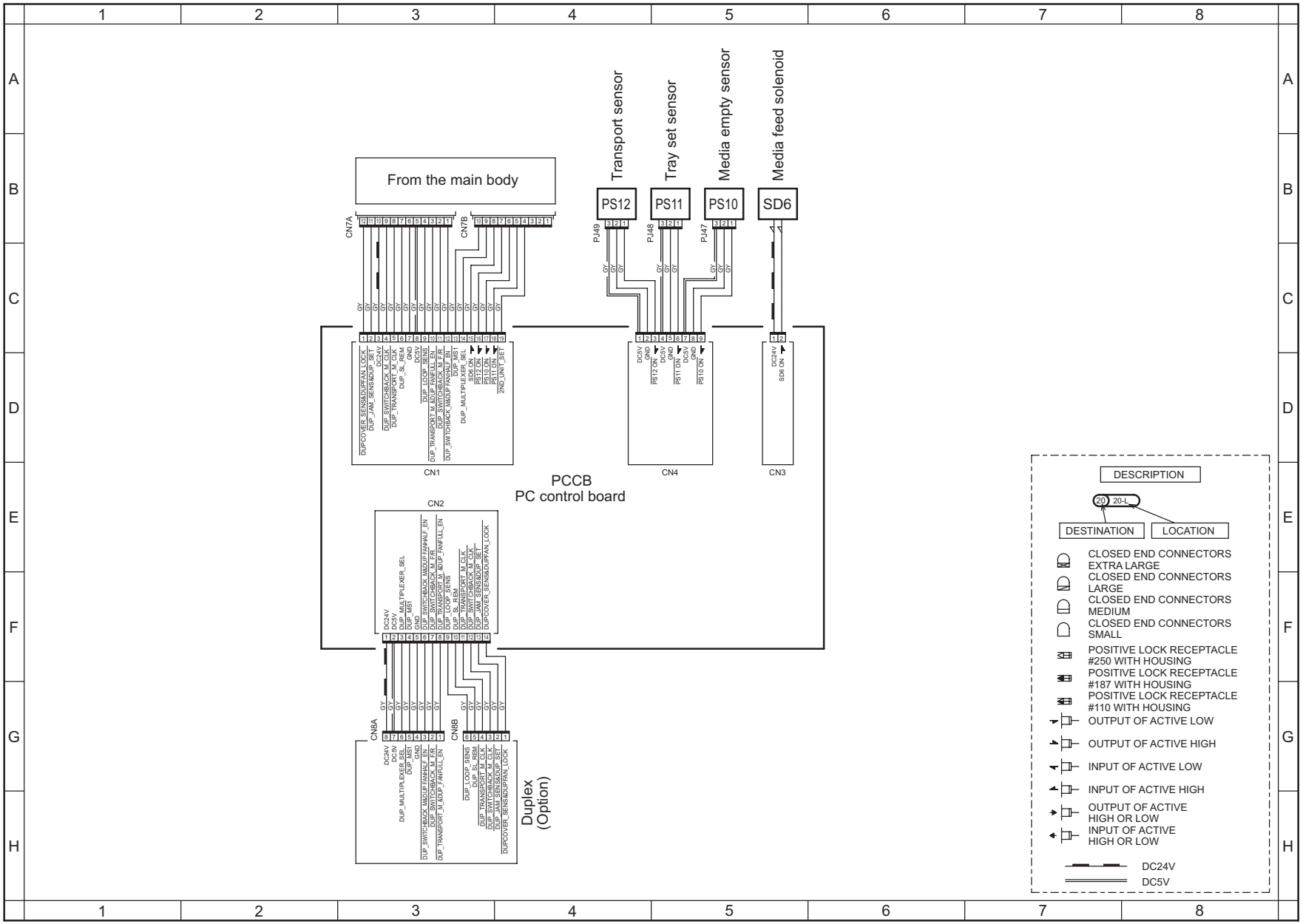
Type	Description
Detection of mis-feed at tray 2 media feed section	The leading edge of the paper does not block the registration sensor (PS2) even after the lapse of a predetermined period of time after the media feed solenoid (SD6) has been energized.

B. Action

Relevant electrical parts	
Registration sensor (PS2) Media feed solenoid (SD6)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the initial check items.	-	-
2	Check the PRCB connector for proper connection and correct as necessary.	-	-
3	Check the PS2 sensor.	PRCB PJ12-6 (ON)	C-3
4	Check SD6 for correct operation.	PCCB CN3-2 (ON)	B-5
5	Change PRCB.	-	-

2nd Tray unit Overall wiring diagram



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